

REMARKS

In response to the final Office Action of December 5, 2007, Applicants ask that all pending claims presently under consideration be allowed in view of the following remarks. Claims 1, 3-6, 8, and 9 are pending, with claims 1, 4, and 9 being independent. Applicants respectfully request entry of the amendments to claims 1, 5, 6, 8, and 9 as the amendments merely correct minor informalities and clarify features similar those recited in the pending claims. Applicants also respectfully request entry of the amendments to claim 4 as the amendments merely recast dependent claim 4 into independent form including features of claim 1, while correcting minor informalities and clarifying features similar those recited in the pending claims. Support for the amendments may be found throughout the application, for example, at paragraphs [0044]-[0082] referring to Figs. 2-4 and paragraphs [0130], [0167], and [0168]. Thus, no new matter has been added.

Allowable Subject Matter

Initially, Applicants acknowledge with appreciation Examiner Lopez's indication that independent claim 9 is allowed and that dependent claims 3 and 8 would be allowable if rewritten in independent form. Applicants have amended independent claim 9 merely to correct minor informalities. Thus, Applicants respectfully request entry of the amendments to claim 9 and submit that the amendments do not impact the allowability of independent claim 9.

Rejections Under 35 U.S.C. § 112

Claims 4-6 were rejected as being indefinite because the use of the term "or" in claim 4 is said to contradict limitations recited in claim 1 from which claim 4 previously depended. Applicants have rewritten claim 4 in independent form, thereby removing any issues with respect to the features of claim 4 contradicting features in claim 1. Therefore, Applicants respectfully request reconsideration and withdrawal of the indefiniteness rejections of claims 4-6.

Rejections Under 35 U.S.C. § 103

Claims 1 and 4-6 were rejected as being unpatentable over Saotome (U.S. Patent No. 4,995,517) in view of Yamashita (U.S. Patent No. 5,752,546) and JP '535 (JP Publication No.

06-330,535). Applicants respectfully request reconsideration and withdrawal of these rejections because neither Saotome, Yamashita, JP '535, nor any proper combination of the references describe or suggest the subject matter of amended independent claims 1 and 4, as discussed more fully below.

As amended, independent claim 1 recites, among other things, a ride control valve for switching a communicating state and a cutout state between an accumulator and a pressure chamber, the cutout state being a state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented, and that a communication opening area of the ride control valve is relatively small when a load pressure detected by the first pressure sensor is a relatively high load pressure and the communication opening area is relatively large when a load pressure detected by the first pressure sensor is a relatively low load pressure. Applicants submit that neither Saotome, Yamashita, JP '535, nor any proper combination of the references, describe or suggest at least these features.

In particular, in Saotome, a change-over valve is selectively switchable between a first position (i.e., position f) configured to freely permit oil flows in both directions and a second position (i.e., position e) configured to permit forward oil flows through the valve while blocking reverse oil flows through the valve. See Saotome at col. 4, lines 15-19. As such, the Saotome valve switches between a communication state in which oil flow is permitted in both directions and a check valve state in which oil flow is permitted in only one direction. Thus, the Saotome valve is not a ride control valve for switching a communicating state and a cutout state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented. Rather, the Saotome valve allows forward oil flows from an accumulator to a cylinder through the Saotome valve in both positions and, therefore, does switch to a cutout state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented.

Moreover, as indicated in the Office Action of December 5, 2007, Saotome "does not disclose that a first pressure sensor detecting a load pressure of the actuator . . . generates a signal, which is used to control an opening area of the ride control valve, such that as the load pressure . . . increases, the opening decreases." Office Action of December 5, 2007 at page 3. Thus, Saotome fails to describe or suggest that a communication opening area of the ride control

valve is relatively small when a load pressure detected by the first pressure sensor is a relatively high load pressure and the communication opening area is relatively large when a load pressure detected by the first pressure sensor is a relatively low load pressure.

Therefore, for at least the reasons discussed above, Applicants submit that Saotome fails to describe or suggest a ride control valve for switching a communicating state and a cutout state between an accumulator and a pressure chamber, the cutout state being a state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented, and that a communication opening area of the ride control valve is relatively small when a load pressure detected by the first pressure sensor is a relatively high load pressure and the communication opening area is relatively large when a load pressure detected by the first pressure sensor is a relatively low load pressure, as recited in independent claim 1.

Neither Yamashita nor JP '535 remedy the deficiencies of Saotome discussed above. Specifically, Yamashita was merely cited for disclosing first and second control valves arranged in a laminated manner by internal piping. See Office Action of December 5, 2007 at page 4. As such, Applicants submit that Yamashita does not remedy Saotome's failure to describe or suggest a ride control valve for switching a communicating state and a cutout state between an accumulator and a pressure chamber, the cutout state being a state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented, and that a communication opening area of the ride control valve is relatively small when a load pressure detected by the first pressure sensor is a relatively high load pressure and the communication opening area is relatively large when a load pressure detected by the first pressure sensor is a relatively low load pressure, as recited in independent claim 1.

In addition, JP '535 describes a variable restrictor that is controlled based on a differential of a pressure in a pipe line before the variable restrictor and a pressure in the pipe line after the variable restrictor. See JP '535 at Abstract. Because the variable restrictor is controlled based on the differential pressure before and after the variable restrictor, the variable restrictor cannot be maintained in a cutout state in which flow of pressure oil through the variable restrictor to and from an accumulator and a pressure chamber is prevented. Rather, as shown in Fig. 6(e), the flow through the variable restrictor continuously oscillates without

reaching a cutout state in which flow of pressure oil through the variable restrictor to and from an accumulator and a pressure chamber is prevented.

Moreover, the JP '535 variable restrictor does not have a communication opening area that is relatively small when a load pressure detected by a first pressure sensor is a relatively high load pressure and that is relatively large when a load pressure detected by the first pressure sensor is a relatively low load pressure. Instead, the JP '535 variable restrictor is controlled based on a differential pressure before and after the variable restrictor. To illustrate, in JP '535, when the load pressure is a relatively high load pressure, the opening defined by the variable restrictor may be relatively large or relatively small depending on the pressure differential before and after the variable restrictor.

Therefore, Applicants submit that JP '535 does not remedy the failure of Saotome and Yamashita to describe or suggest a ride control valve for switching a communicating state and a cutout state between an accumulator and a pressure chamber, the cutout state being a state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented, and that a communication opening area of the ride control valve is relatively small when a load pressure detected by the first pressure sensor is a relatively high load pressure and the communication opening area is relatively large when a load pressure detected by the first pressure sensor is a relatively low load pressure, as recited in independent claim 1.

For at least the reasons discussed above, Applicants respectfully request reconsideration and withdrawal of the rejection of independent claim 1 and its dependent claims.

As amended, independent claim 4 recites, among other things, a ride control valve for switching a communicating state and a cutout state between the accumulator and the pressure chamber, the cutout state being a state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented, and, when an operation for increasing a communication opening area is performed, a value of an upper limit of the communication opening area is controlled on a basis of a degree of a load pressure of the actuator detected by a first pressure sensor and a degree of a travel state of the working vehicle detected by a travel state detecting sensor. Applicants submit that neither Saotome, Yamashita, JP '535, nor any proper combination of the references, describe or suggest at least these features.

Specifically, for reasons similar to those discussed above with respect to independent claim 1, Applicants submit that neither Saotome, Yamashita, JP '535, nor any proper combination of the references, describe or suggest a ride control valve for switching a communicating state and a cutout state between the accumulator and the pressure chamber, the cutout state being a state in which flow of pressure oil through the ride control valve to and from the accumulator and the pressure chamber is prevented, and, when an operation for increasing a communication opening area is performed, a value of an upper limit of the communication opening area is controlled on a basis of a degree of a load pressure of the actuator detected by a first pressure sensor. In addition, Applicants submit that none of the cited references describe or suggest that, when an operation for increasing a communication opening area is performed, a value of an upper limit of the communication opening area is controlled on a basis of a degree of a travel state of the working vehicle detected by a travel state detecting sensor, as also recited in independent claim 4.

For at least the reasons discussed above, Applicants respectfully request reconsideration and withdrawal of the rejection of independent claim 4 and its dependent claims.

Double Patenting Rejection

An objection was made to claim 6 as being a substantial duplicate of claim 5. Specifically, claims 5 and 6 are said to be different ways of saying the same thing. Applicants respectfully disagree.

Specifically, claim 5 recites that, when an increase of the load pressure of the actuator is detected by the first pressure sensor and/or when an increase of a traveling speed of the working vehicle is detected by the travel state detecting sensor, the value of the upper limit is controlled to be smaller, and claim 6 recites that, when a decrease of the load pressure of the actuator is detected by the first pressure sensor and/or when a decrease of a traveling speed of the working vehicle is detected by the travel state detecting sensor, the value of the upper limit is controlled to be larger. Accordingly, claim 5 is directed to control of the value of the upper limit when an increase of the load pressure of the actuator is detected and/or when an increase of a traveling speed of the working vehicle is detected. Alternatively, claim 6 is directed to control of the value of the upper limit when a decrease of the load pressure of the actuator is detected and/or

when a decrease of a traveling speed of the working vehicle is detected. Because claims 5 and 6 are directed to different aspects related to control of the value of the upper limit, the claims are not substantial duplicates of one another.

Moreover, Applicants submit that claim 5 does not claim the same thing as claim 6. Just because the value of the upper limit is controlled to be smaller when an increase of the load pressure of the actuator is detected by the first pressure sensor and/or when an increase of a traveling speed of the working vehicle is detected by the travel state detecting sensor, as recited in claim 5, the value of the upper limit is not necessarily also controlled to be larger when a decrease of the load pressure of the actuator is detected by the first pressure sensor and/or when a decrease of a traveling speed of the working vehicle is detected by the travel state detecting sensor. Rather, when a decrease of the load pressure of the actuator is detected by the first pressure sensor and/or when a decrease of a traveling speed of the working vehicle is detected by the travel state detecting sensor, the value of the upper limit may be controlled to be the same or smaller. Thus, claims 5 and 6 are of different scope and claim 6 is not a substantial duplicate of claim 5.

For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the double patenting objection of claim 6.

Conclusion

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants submit that all claims are in condition for allowance.

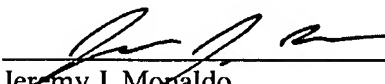
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Respectfully submitted,

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